LineUp With Math™ Alignment
Indiana's Academic Standards - Mathematics

Standard 5. Measurement

Students convert between units of measure and use rates and scale factors to solve problems. They compute the perimeter, area, and volume of geometric objects. They investigate how perimeter, area, and volume are affected by changes of scale.

Indicator	***LineUp With Math™* Activities**
8.5.2 Solve simple problems involving rates and derived measurements for attributes such as velocity and density.	--Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes.

Standard 7. Problem Solving

Students make decisions about how to approach problems and communicate their ideas.

Indicator	***LineUp With Math™* Activities**
8.7.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
8.7.2 Make and justify mathematical conjectures based on a general description of a mathematical question or problem.	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
8.7.3 Decide when and how to divide a problem into simpler parts.	--Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes.

Students use strategies, skills, and concepts in finding and communicating solutions to problems.

Indicator	***LineUp With Math™* Activities**
8.7.4 Apply strategies and results from simpler problems to solve more complex problems.	--Choose and apply a variety of strategies to optimize the solution of air traffic control conflicts.
8.7.6 Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
8.7.10 Make precise calculations and check the validity of the results in the context of the problem.	--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.

Students determine when a solution is complete and reasonable and move beyond a particular problem by generalizing to other situations.	
Indicator 8.7.11 Decide whether a solution is reasonable in the context of the original situation.	***LineUp With Math™*** **Activities** --Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
8.7.12 Note the method of finding the solution and show a conceptual understanding of the method by solving similar problems.	--Explore and apply a variety of strategies to optimize the solution of air traffic control conflicts.